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Are Liquidity and Information Risks Priced in the Treasury Bond Market?

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ABSTRACT

We provide a comprehensive empirical analysis of the effects of liquidity and information risks on expected returns of Treasury bonds. We focus on the systematic liquidity risk of Pastor and Stambaugh as opposed to the traditional microstructure-based measures of liquidity. Information risk is measured by the probability of information-based trading (PIN). We document a strong positive relation between expected Treasury returns and liquidity and information risks, controlling for the effects of other systematic risk factors and bond characteristics. This relation is robust to many empirical specifications and a wide variety of traditional liquidity and informed trading proxies.

THE IMPORTANCE OF LIQUIDITY and information risks for asset pricing has been increasingly recognized in the literature. For example, in her 2003 American Finance Association presidential address, O'Hara (2003, p. 1335) argues that, "Markets have two important functions—liquidity and price discovery—and these functions are important for asset pricing." She also suggests that standard asset pricing models fail to adequately capture asset price behavior because they assume that the underlying problems of liquidity and price discovery have been resolved.

Recent attempts to incorporate liquidity and information risk factors into asset pricing models have generated important insights into asset price behavior. In an influential study, Pastor and Stambaugh (2003) show that marketwide liquidity is a state variable that is important for pricing common stocks. In particular, they find that expected stock returns are positively related to the

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